

Best Fit line-

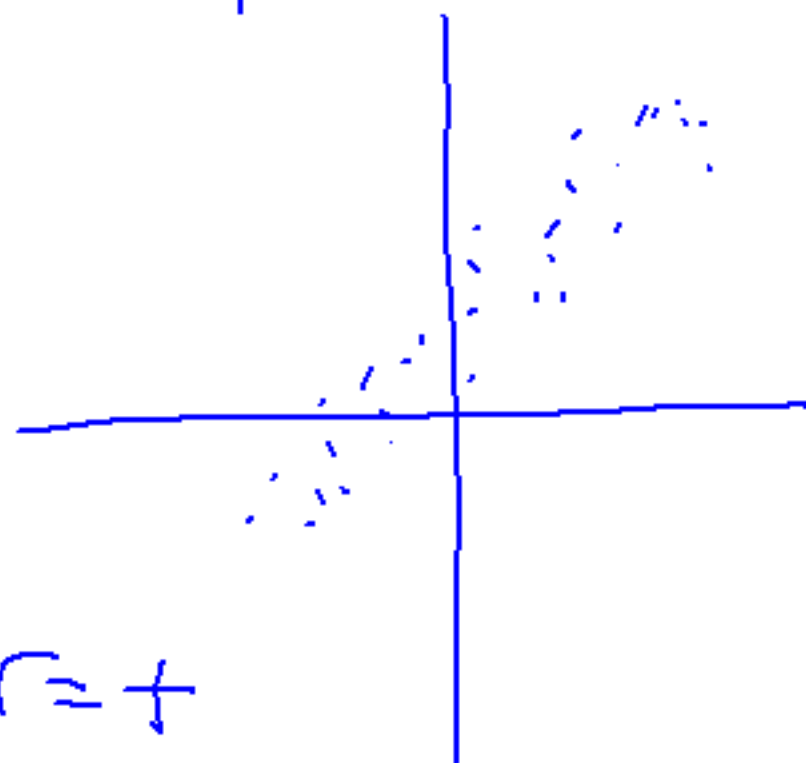
- Line that best approximates the relationship btw. x and y .
- doesn't have to go thru any of pts.
- $y = mx + b$
- * Used to predict values of y

Correlation

symbol = r

- shows the direction & strength of linear relationship btw. x and y .
- $r = \text{decimal}$ $-1 \leq r \leq 1$

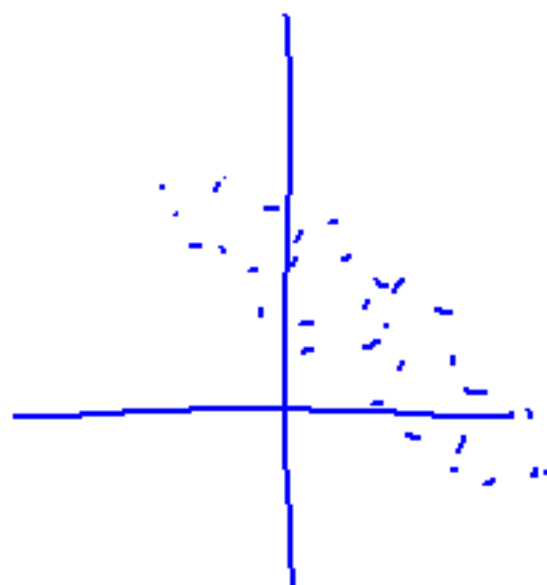
Ex
Positive



$r = +$

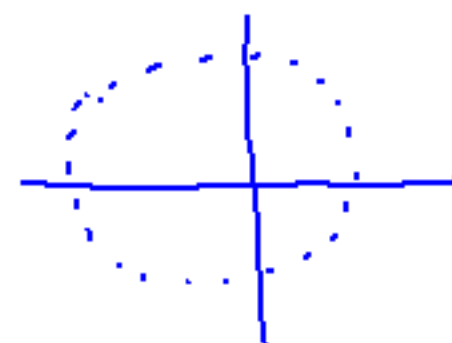
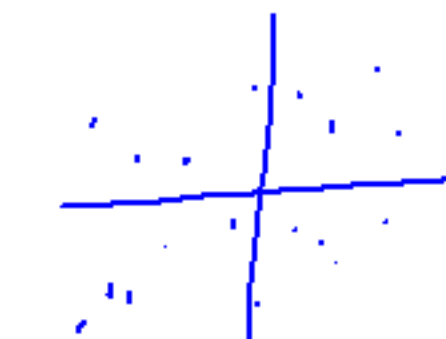
$r = ?$

Neg



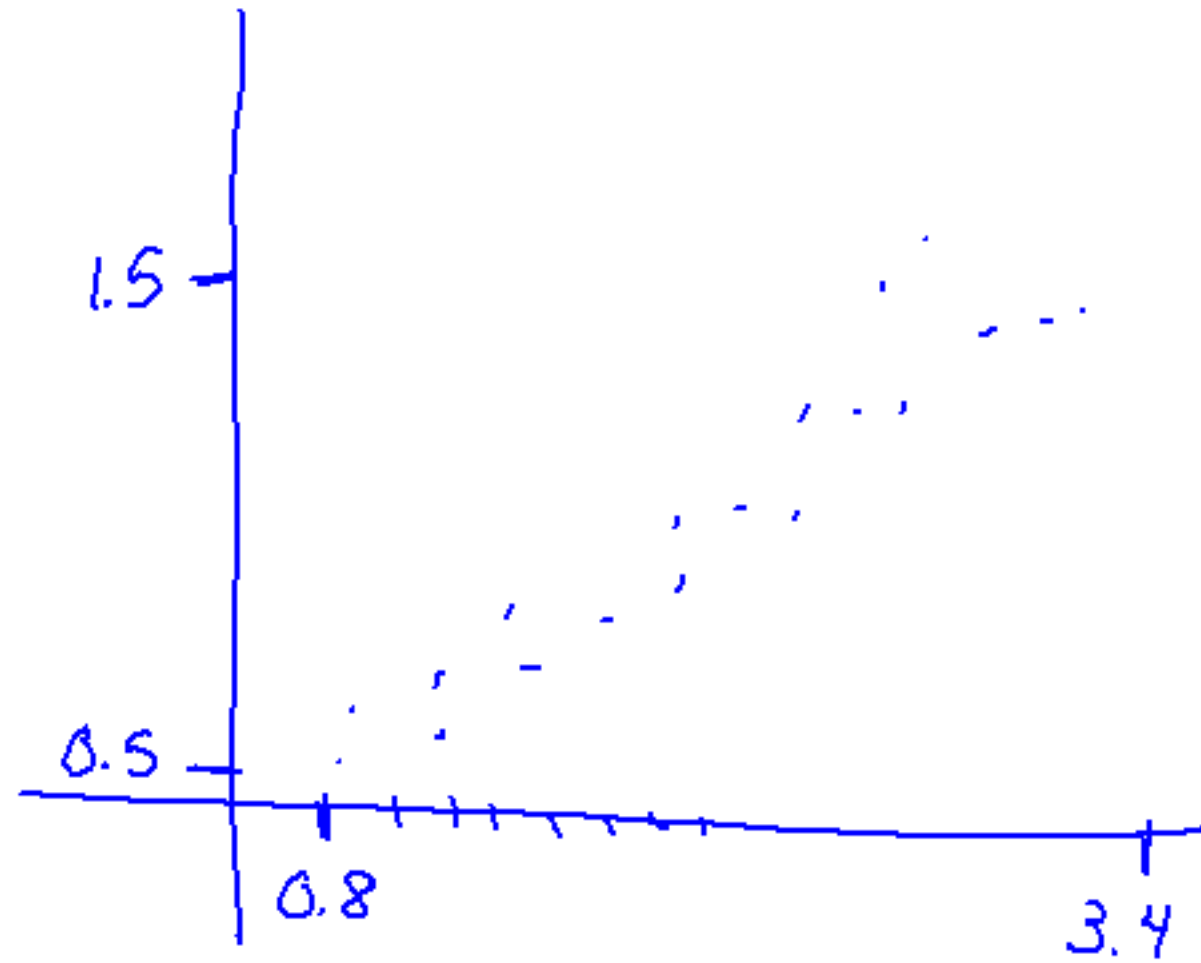
$r = -$

None



$r = 0$

$\frac{\sum x^2}{a)}$



b) $y = 0.289x + 0.333$

c) $0.962 +$

d) If my speed is 5.2, how many steps am I predicted to take?

$$\begin{array}{l} \text{steps} \quad \quad \quad \text{speed} \\ \downarrow \quad \quad \quad \downarrow \\ y = 0.289x + 0.333 \\ 1.8358 = 0.289(5.2) + 0.333 \end{array}$$